

X<sub>6</sub> is D-Leu (l) or D-Phe (f);

X<sub>7</sub> is a D-enantiomeric basic residue;

X<sub>8</sub> is a D-enantiomeric acidic residue;

X<sub>9</sub> is D-Leu (l) or D-Trp (w);

X<sub>10</sub> is D-Leu (l) or D-Trp (w);

X<sub>11</sub> is a D-enantiomeric acidic residue or D-Asn (n);

X<sub>12</sub> is a D-enantiomeric acidic residue;

X<sub>13</sub> is D-Leu (l), D-Trp (w) or D-Phe (f);

X<sub>14</sub> is a D-enantiomeric basic residue or D-Leu (l);

X<sub>15</sub> is D-Gln (q) or D-Asn (n);

X<sub>16</sub> is a D-enantiomeric basic residue;

X<sub>17</sub> is D-Leu (l);

X<sub>18</sub> is a D-enantiomeric basic residue;

Z<sub>1</sub> is RRN-, or RC(O)NR-;

Z<sub>2</sub> is -C(O)NRR, -C(O)OR or -C(O)OH or a salt thereof;

each R is independently -H, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl, (C<sub>1</sub>-C<sub>6</sub>) alkynyl, (C<sub>5</sub>-C<sub>20</sub>)

aryl, (C<sub>6</sub>-C<sub>26</sub>) alkaryl, 5-20 membered heteroaryl or 6-26 membered alkheteroaryl or a

1 to 7-residue peptide or peptide analogue in which one or more bonds between residues 1 through 7 are independently a substituted amide, an isostere of an amide or an amide mimetic;

each " - " between residues X<sub>1</sub> through X<sub>18</sub> independently designates an amide linkage, a substituted amide linkage, an isostere of an amide or an amide mimetic; or

(ii) a 14 to 21- residue deleted D-enantiomeric peptide or peptide analogue according to formula (I) in which at least one and up to eight of residues X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>, X<sub>5</sub>, X<sub>6</sub>, X<sub>7</sub>, X<sub>8</sub>, X<sub>9</sub>, X<sub>10</sub>, X<sub>11</sub>, X<sub>12</sub>, X<sub>13</sub>, X<sub>14</sub>, X<sub>15</sub>, X<sub>16</sub>, X<sub>17</sub> and X<sub>18</sub> are optionally deleted; or

(iii) an 18 to 22- residue altered D-enantiomeric peptide or peptide analogue according to formula (I) in which at least one of residues X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>, X<sub>5</sub>, X<sub>6</sub>, X<sub>7</sub>, X<sub>8</sub>, X<sub>9</sub>, X<sub>10</sub>, X<sub>11</sub>, X<sub>12</sub>, X<sub>13</sub>, X<sub>14</sub>, X<sub>15</sub>, X<sub>16</sub>, X<sub>17</sub> and X<sub>18</sub> is conservatively substituted with another D-enantiomeric residue.

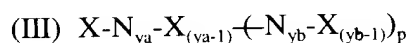
16. (Twice amended) A multimeric ApoA-I agonist compound which comprises formula (II):



or a pharmaceutically acceptable salt thereof, wherein:

- each m is independently an integer from 0 to 1;
- n is an integer from 0 to 10;
- each "HH" is independently a D-enantiomeric peptide or peptide analogue according to Claim 1;
- each "LL" is independently a bifunctional linker; and
- each " - " independently designates a covalent linkage.

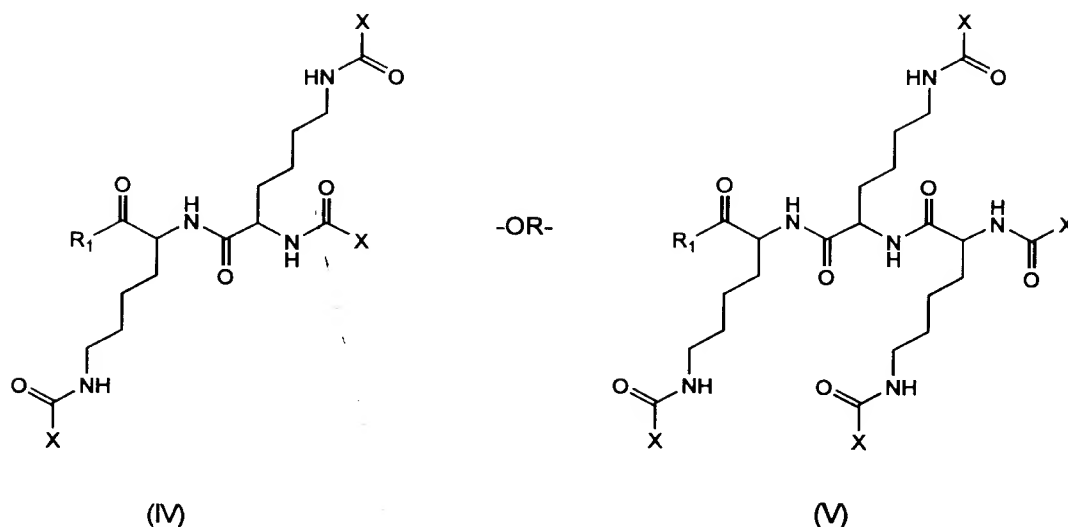
17. (Twice amended) A multimeric ApoA-I agonist compound which comprises formula (III):



or a pharmaceutically acceptable salt thereof, wherein:

- each X is independently  $HH-(LL_m-HH)_nLL_m-HH$ ;
- each HH is independently a D-enantiomeric peptide or peptide analogue according to Claim 1;
- each LL is independently a bifunctional linker;
- each m is independently an integer from 0 to 1;
- each n is independently an integer from 0 to 8;
- $N_{y_a}$  and  $N_{y_b}$  are each independently a multifunctional linking moiety where  $y_a$  and  $y_b$  represent the number of functional groups on  $N_{y_a}$  and  $N_{y_b}$ , respectively;
- each  $y_a$  or  $y_b$  is independently an integer from 3 to 8;
- p is an integer from 0 to 7; and
- each "—" independently designates a covalent bond.

18. (Twice amended) A multimeric ApoA-I agonist compound which comprises formula (IV) or (V):



or a pharmaceutically acceptable salt thereof, wherein:

each X is independently  $\text{HH}-(\text{LL}_m-\text{HH})_n\text{LL}_m-\text{HH}$ ;

each HH is independently a D-enantiomeric peptide or peptide analogue according to Claim 1;

each LL is independently a bifunctional linker;

each n is independently an integer from 0 to 1;

each m is independently an integer from 0 to 8;

$R_1$  is -OR or -NRR; and

each R is independently -H,  $(\text{C}_1-\text{C}_6)$  alkyl,  $(\text{C}_1-\text{C}_6)$  alkenyl,  $(\text{C}_1-\text{C}_6)$  alkynyl,  $(\text{C}_5-\text{C}_{20})$  aryl,  $(\text{C}_6-\text{C}_{26})$  alkaryl, 5-20 membered heteroaryl or 6-26 membered alkheteroaryl.

25. (Twice amended) An ApoA-I agonist-lipid complex comprising an ApoA-I agonist and a lipid, wherein the ApoA-I agonist is a D-enantiomeric peptide or peptide analogue according to Claim 1, a multimeric ApoA-I agonist compound according to Claim 16, a multimeric ApoA-I agonist compound according to Claim 17, or a multimeric ApoA-I agonist compound according to Claim 18.

33. (Twice amended) A pharmaceutical composition comprising an ApoA-I agonist and a

pharmaceutically acceptable carrier, excipient or diluent, wherein the ApoA-I agonist is a D-enantiomeric peptide or peptide analogue according to Claim 1, a multimeric ApoA-I agonist compound according to Claim 16, a multimeric ApoA-I agonist compound according to Claim 17, or a multimeric ApoA-I agonist compound according to Claim 18.

Please add new Claims 53-75:

53. The ApoA-I agonist compound of Claim 1 which is the altered D-enantiomeric peptide or peptide analogue according to formula (I).
54. The ApoA-I agonist compound of Claim 53 in which the D-enantiomeric hydrophobic residues are fixed according to formula (I) and at least one non-fixed residue is conservatively substituted with another D-enantiomeric residue.
55. The ApoA-I agonist compound of Claim 54 in which:
- X<sub>1</sub> is D-Pro (p), Gly (G), D-Asn (n) or D-Ala (a);
  - X<sub>2</sub> is D-Ala (a), D-Leu (l) or D-Val (v);
  - X<sub>3</sub> is D-Leu (l);
  - X<sub>5</sub> is D-Leu (l) or D-Phe (f);
  - X<sub>6</sub> is D-Leu (l) or D-Phe (f);
  - X<sub>9</sub> is D-Leu (l) or D-Trp (w);
  - X<sub>10</sub> is D-Leu (l) or D-Trp (w);
  - X<sub>13</sub> is D-Leu (l), D-Trp (w) or D-Phe (f);
  - X<sub>17</sub> is D-Leu (l); and
- at least one of X<sub>4</sub>, X<sub>7</sub>, X<sub>8</sub>, X<sub>11</sub>, X<sub>12</sub>, X<sub>14</sub>, X<sub>15</sub>, X<sub>16</sub> and X<sub>18</sub> is conservatively substituted with another D-enantiomeric residue.
56. The ApoA-I agonist compound of Claim 53 in which the D-enantiomeric hydrophilic residues are fixed according to formula (I) and at least one non-fixed residue is conservatively substituted with another D-enantiomeric residue.
57. The ApoA-I agonist compound of Claim 56 in which:
- X<sub>4</sub> is D-Asp (d) or D-Glu (e);
  - X<sub>7</sub> is D-Arg (r), D-Lys (k) or D-Orn;

X<sub>8</sub> is D-Asp (d) or D-Glu (e);  
X<sub>11</sub> is D-Asn (n) or D-Glu (e);  
X<sub>12</sub> is D-Glu (e);  
X<sub>14</sub> is D-Lys (k), D-Arg (r) or D-Orn;  
X<sub>15</sub> is D-Gln (q) or D-Asn (n);  
X<sub>16</sub> is D-Lys (k), D-Arg (r) or D-Orn;  
X<sub>18</sub> is D-Asn (n) or D-Gln (q); and

at least one of X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>5</sub>, X<sub>6</sub>, X<sub>9</sub>, X<sub>10</sub>, X<sub>13</sub> and X<sub>17</sub> is conservatively substituted with another D-enantiomeric residue.

58. The ApoA-I agonist compound of Claim 56 in which X<sub>3</sub> is D-Leu (l), X<sub>6</sub> is D-Phe (f), X<sub>9</sub> is D-Leu (l) or D-Trp (w), X<sub>10</sub> is D-Leu (l) or D-Trp (w) and at least one of X<sub>1</sub>, X<sub>2</sub>, X<sub>5</sub>, X<sub>13</sub> and X<sub>17</sub> is conservatively substituted with another D-enantiomeric residue.
59. The ApoA-I agonist compound of Claim 55 or 57 in which the substituting D-enantiomeric residue is classified within the same sub-category as the substituted D-enantiomeric residue.
60. The ApoA-I agonist compound of Claim 1 which is the deleted D-enantiomeric peptide or peptide analogue according to formula (I).
61. The ApoA-I agonist compound of Claim 60 in which one or two helical turns of the D-enantiomeric peptide or peptide analogue is optionally deleted.
62. The ApoA-I agonist compound of Claim 1 which is an 18-residue D-enantiomeric peptide or peptide analogue according to formula (I).
63. The ApoA-I agonist compound of Claim 62 in which the "-" between residues designates -C(O)NH-;  
Z<sub>1</sub> is H<sub>2</sub>N-; and  
Z<sub>2</sub> is -C(O)OH or a salt thereof.

64. The ApoA-I agonist compound of Claim 63, in which;  
X<sub>1</sub> is D-Ala (a), Gly (G), D-Asn (n) or D-Pro (p);  
X<sub>2</sub> is D-Ala (a), D-Val (v), or D-Leu (l);  
X<sub>3</sub> is D-Leu (l);  
X<sub>4</sub> is D-Asp (d) or D- Glu (e);  
X<sub>5</sub> is D-Leu (l) or D-Phe (f);  
X<sub>6</sub> is D-Leu (l) or D-Phe (f);  
X<sub>7</sub> is D-Arg (r), D-Lys (k) or D-Orn;  
X<sub>8</sub> is D-Asp (d) or D-Glu (e);  
X<sub>9</sub> is D-Leu (l) or D-Trp (w);  
X<sub>10</sub> is D-Leu (l) or D-Trp (w);  
X<sub>11</sub> is D-Glu (e) or D-Asn (n);  
X<sub>12</sub> is D-Glu (e);  
X<sub>13</sub> is D-Leu (l), D-Trp (w) or D-Phe (f);  
X<sub>14</sub> is D-Arg (r), D-Lys (k) or D-Orn;  
X<sub>15</sub> is D-Gln (q) or D-Asn (n);  
X<sub>16</sub> is D-Arg (r), D-Lys (k) or D-Orn;  
X<sub>17</sub> is D-Leu (l); and  
X<sub>18</sub> is D-Arg (r), D-Lys (k) or D-Orn.
65. The multimeric ApoA-I agonist compound of Claim 16, 17 or 18 in which the bifunctional linker is cleavable.
66. The multimeric ApoA-I agonist compound of Claim 16, 17 or 18 in which n is 0.
67. The multimeric ApoA-I agonist compound of Claim 66 in which m is 0.
68. The multimeric ApoA-I agonist compound of Claim 16, 17 or 18 in which each HH is independently an altered D-enantiomeric peptide or peptide analogue.
69. The multimeric ApoA-I agonist compound of Claim 16, 17 or 18 in which each HH is independently a deleted D-enantiomeric peptide or peptide analogue.
70. The ApoA-I agonist-lipid complex of Claim 25 in which the lipid is sphingomyelin.

71. The pharmaceutical composition of Claim 33 in which the ApoA-I agonist is in the form of an ApoA-I agonist-lipid complex, said complex comprising the ApoA-I agonist compound and a lipid.
72. The pharmaceutical composition of Claim 71 in which the lipid is sphingomyelin.
73. The pharmaceutical composition of Claim 71 which is a lyophilized powder.
74. The method of Claim 40 or 50 in which said subject is a human.
75. The method of Claim 40 or 50 in which about 0.5 mg/kg to about 100 mg/kg ApoA-I agonist is administered to said subject.